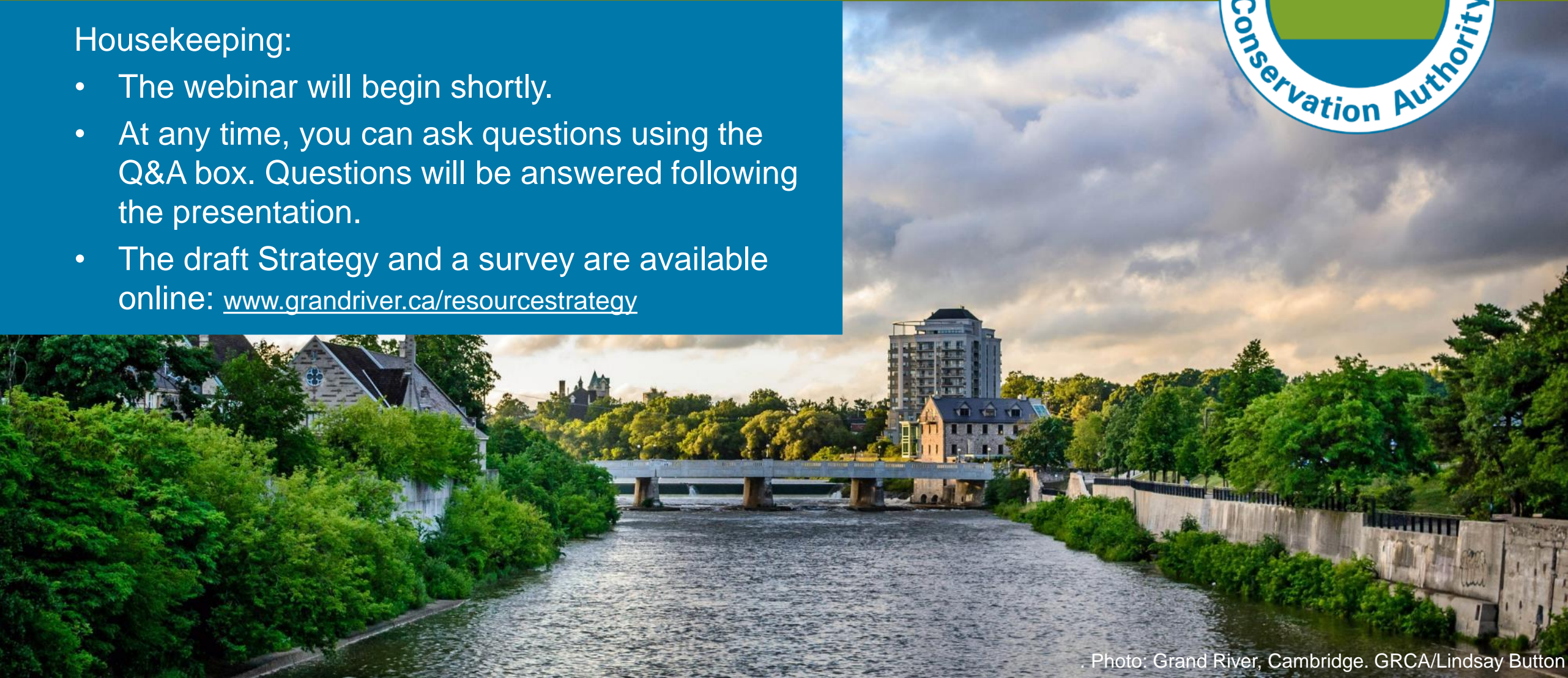


# The GRCA's Watershed-based Resource Management Strategy



## Housekeeping:

- The webinar will begin shortly.
- At any time, you can ask questions using the Q&A box. Questions will be answered following the presentation.
- The draft Strategy and a survey are available online: [www.grandriver.ca/resourcestrategy](http://www.grandriver.ca/resourcestrategy)



# Outline

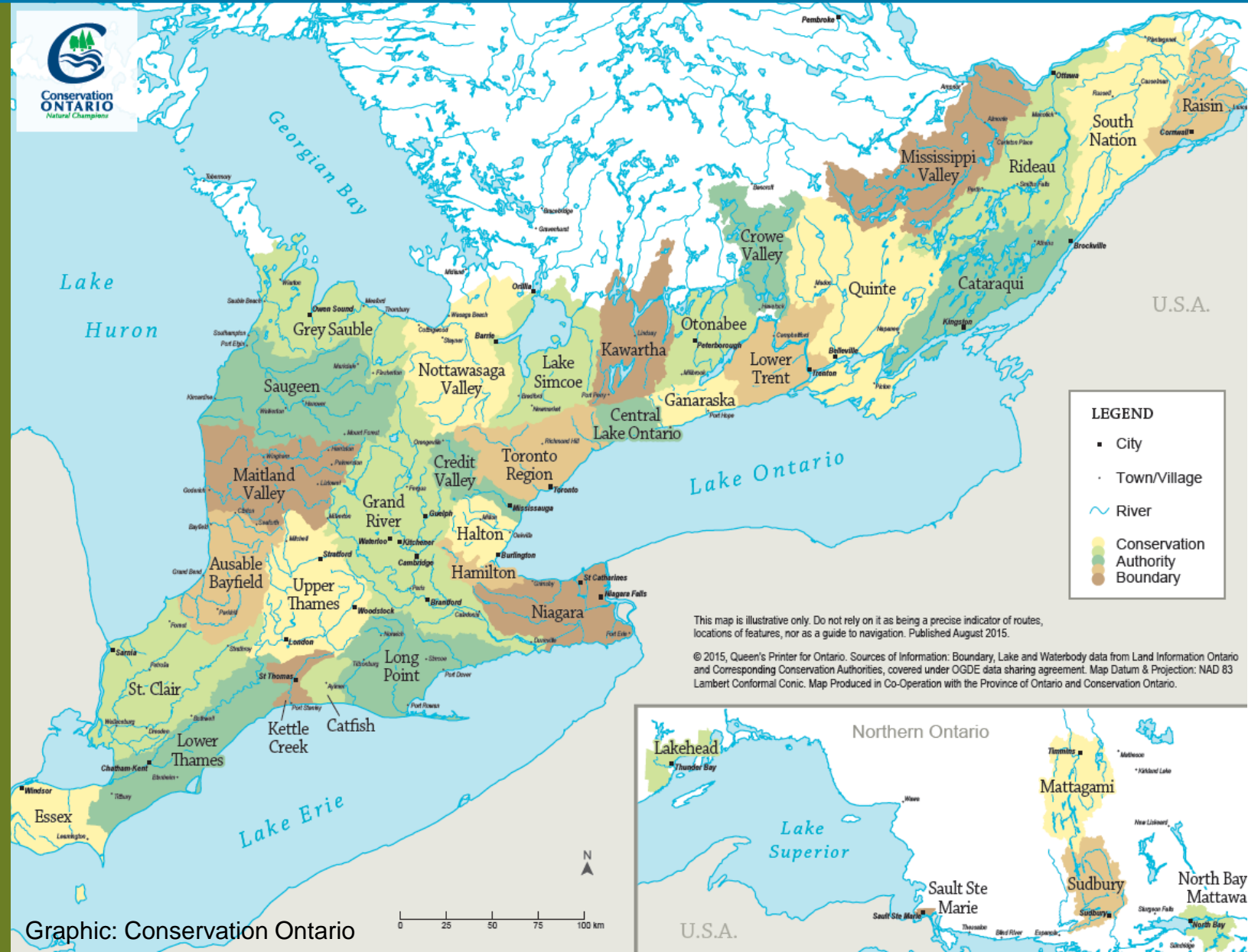
- About conservation authorities and the GRCA
- About the Grand River watershed
- Guiding principles
- Objectives
- Programs and services
- Looking forward
- Sharing your feedback



# About conservation authorities

## Conservation Authorities Act

- 36 conservation authorities in Ontario
- Local agencies organized on a watershed basis
- Guided by Boards of Directors appointed by member municipalities



# History of the watershed

In the 19<sup>th</sup> and 20<sup>th</sup> centuries, **clearing the land and urban growth** took a high toll on the natural system.



# 20<sup>th</sup> Century Issues - Floods



Photo: Galt (Cambridge), March/April, 1929.

# 20<sup>th</sup> Century Issues - Drought



Photo: View looking down an almost dry river bed in Elora Gorge, 1910. Wellington County Museum and Archives A1978.223

# 20<sup>th</sup> Century Issues – Poor Water Quality

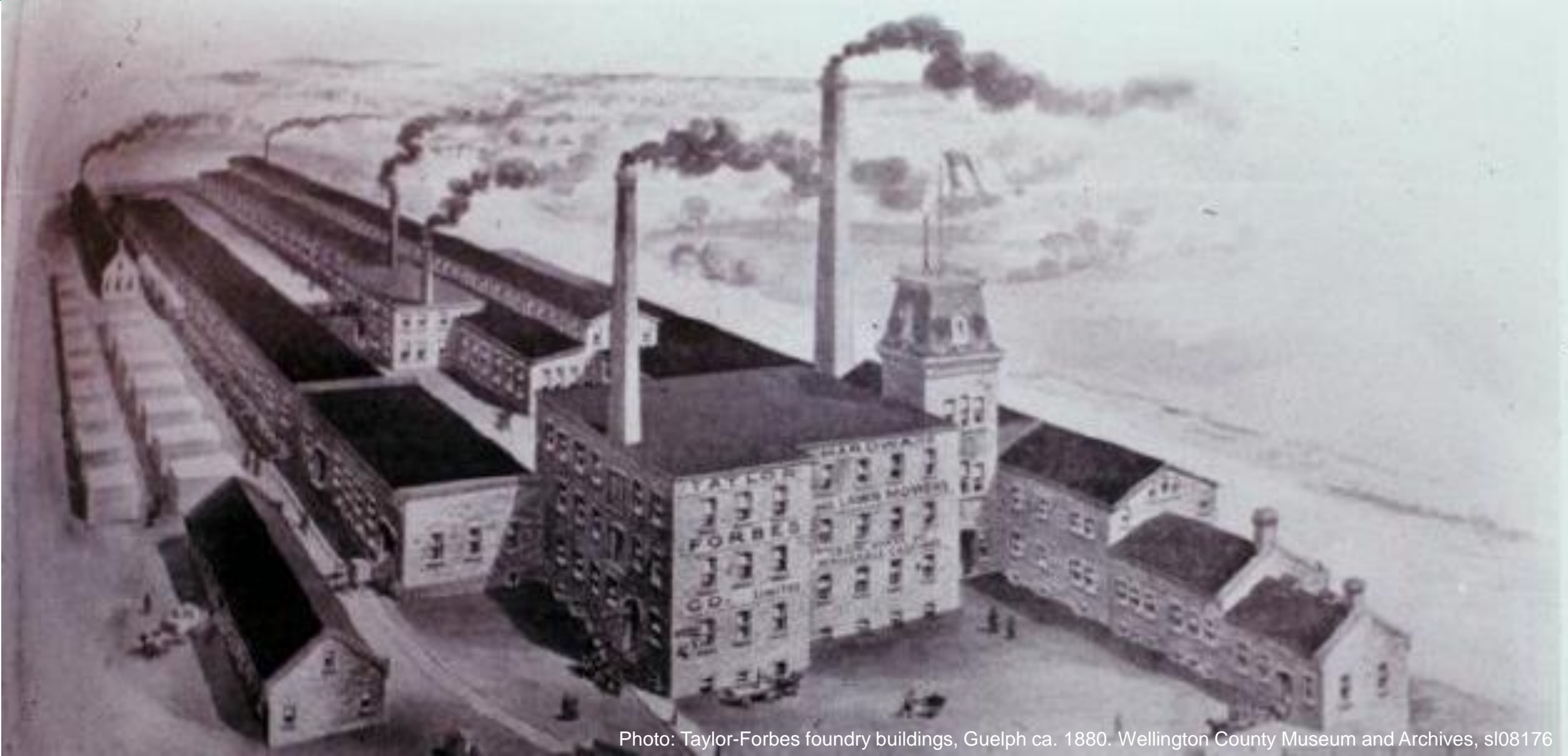


Photo: Taylor-Forbes foundry buildings, Guelph ca. 1880. Wellington County Museum and Archives, sl08176

# History of the GRCA

Business leaders pushed for watershed agency - they understood the link between a **healthy environment and a healthy economy.**





# Why are we developing a new Strategy?



Two new Strategies are required by regulation under the Conservation Authorities Act:

- **Watershed-based Resource Management Strategy**
- Conservation Area Strategy

Ensures the GRCA's programs reflect legislated mandate, municipal commitments, and watershed issues.

# Our Vision



A healthy watershed where we live, work, play, and prosper in balance with the natural environment.

# Our Mission

We will work with local communities to reduce flood damage, provide access to outdoor spaces, share information about the natural environment, and make the watershed more resilient to climate change.



# The Grand River watershed today

- Largest watershed in southern Ontario, about 6,800 square km
- River flows from Dundalk to Port Maitland on Lake Erie
- 38 municipalities
- 2 First Nations
- Population of about 1 million
- Canadian Heritage River



# Watershed stressors and issues

- Watershed population projected to grow from 1 million to 1.5 million by 2051
- Water quality - assimilation of treated effluent from 30 sewage plants and agricultural runoff
- Shifting climate and hydrologic patterns
- Flooding and drought
- Habitat loss and fragmentation

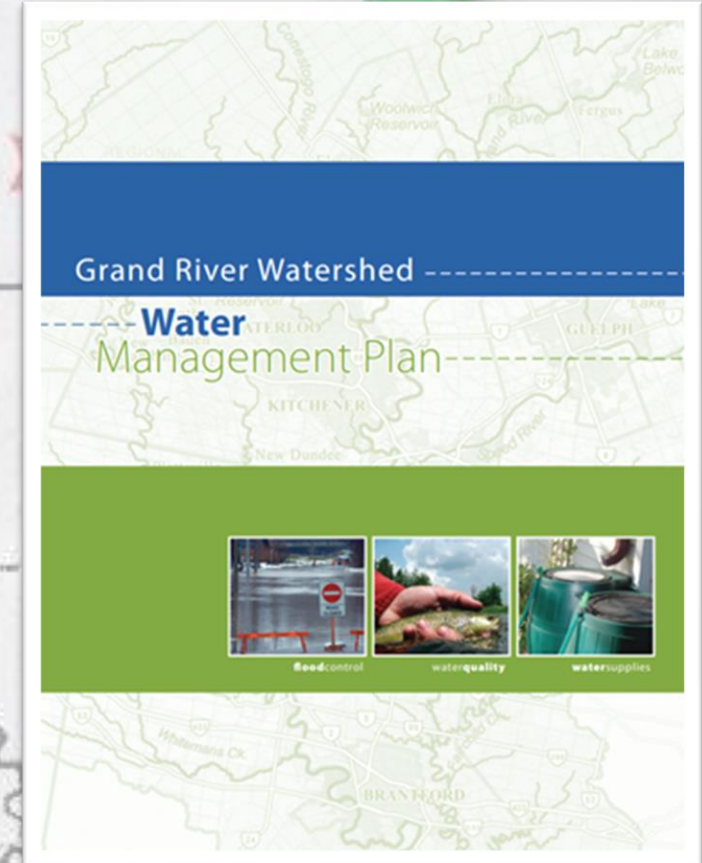


# Watershed sciences and collaborative planning

90 years of watershed-scale planning

**Grand River Water Management Plan** – a voluntary, collaborative plan

Water Managers Working Group – GRCA, municipal, First Nations, provincial, federal water leaders implementing the Plan



# Guiding principles

- The **watershed is the appropriate** scale for managing water and the linkages between water and other natural resources.
- A **well-managed river system is crucial for a healthy watershed**, sustaining prosperity, growth, well-being, and climate change resiliency.
- **Collaboration is essential**, as the management of water and land is a shared responsibility among the conservation authority, municipalities, First Nations, government agencies, landowners, residents, and other interest holders.
- When making decisions, the **GRCA considers the broad range of water uses** and values, and the needs of natural and human communities.
- The **GRCA's programs adapt and respond** to changing conditions, priorities, vulnerabilities, and pressures.

# Objectives

- 1. Protect life and minimize property damage from natural hazards,** including drought, flooding, erosion, dynamic beaches, and hazardous lands and sites.
- 2. Manage water to ensure sustainable water supplies** for communities, economies and ecosystems.
- 3. Improve water quality** to enhance river health and reduce the river's impact on Lake Erie.
- 4. Protect, enhance, and restore natural areas** to improve ecosystem health and resilience.
- 5. Protect drinking water sources** from contamination and overuse.
- 6. Connect people to the environment** through outdoor experiences.
- 7. Manage the GRCA's landholdings** in a responsible and sustainable way.



# 1. Protect life and minimize property damage

## Monitoring watershed conditions

- Climate
- Stream, reservoir, Lake Erie levels and river ice conditions

## Managing the risk of natural hazards

- Maintaining and operating water and erosion control structures (dams, dikes)
- Flood forecasting and warning
- Natural hazard mapping
- Planning and regulation of development in floodplains and other hazard lands
- Subwatershed planning



# 2. Manage water to ensure sustainable supplies

## Monitoring watershed conditions

## Maintaining and operating water and erosion control structures (dams, dikes)

- 7 multi-purpose dams and reservoirs
- Reduce flood damages
- Augment river flows to support water supply and improve river's capacity to receive treated wastewater

## Coordinating response to low water levels

- Low Water Response Team



# 3. Improve water quality

## Monitoring watershed conditions

- Surface water and groundwater quality, temperature
- Analysis and reporting

## Improving municipal wastewater effluents

- Watershed-wide Wastewater Optimization Program

## Improving rural water quality

- Providing technical and financial support to landowners for water quality projects

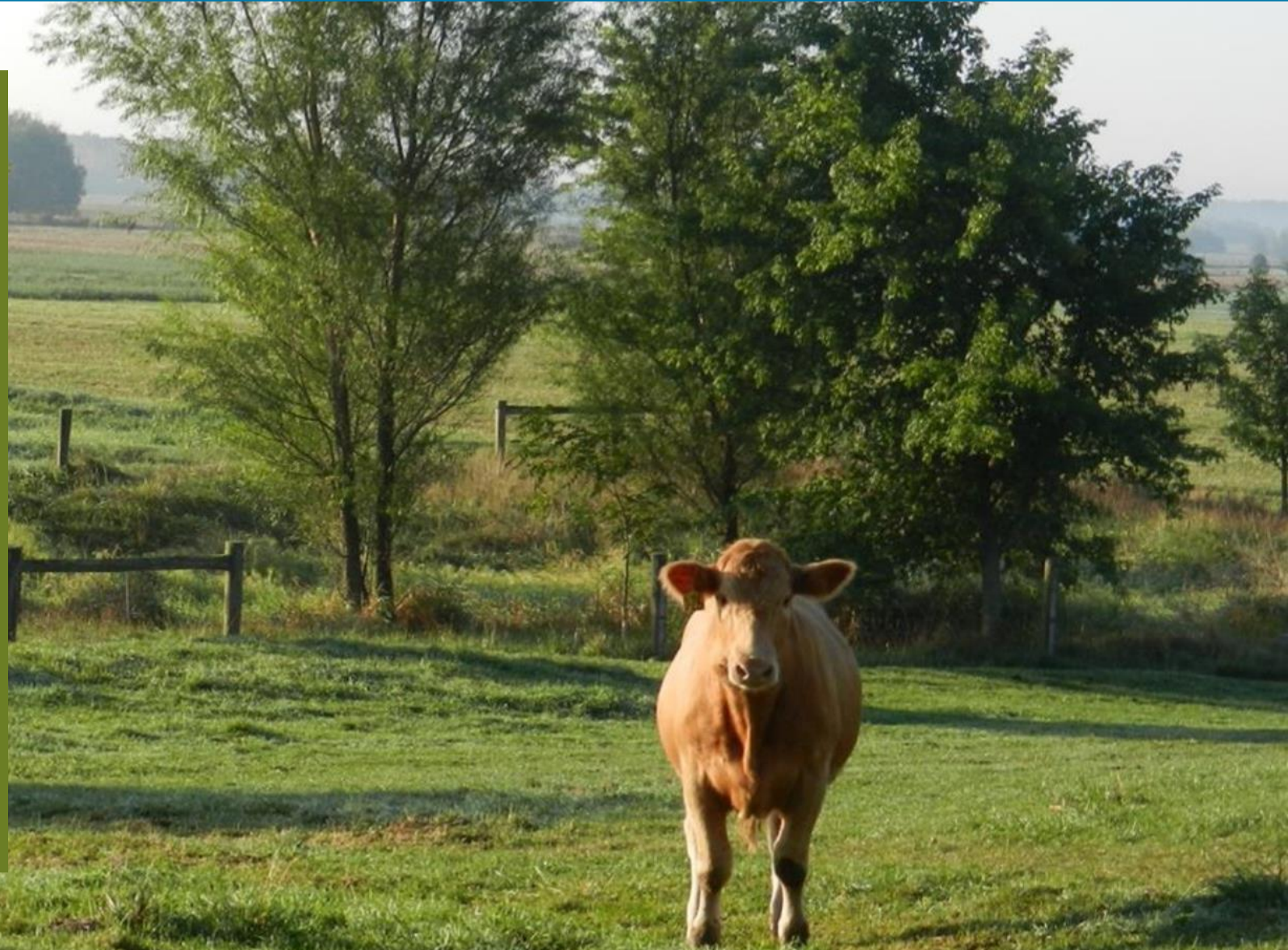


Photo: A fenced buffer alongside a creek. GRCA

# 4. Protect, enhance and restore natural areas

## Conserving and managing lands

- About 11% of the wetlands and 7% of the forests in the watershed are on GRCA lands

## Providing conservation services to landowners and residents

- Private land tree planting programs and naturalization projects



# 5. Protect drinking water sources



## Drinking water source protection

- Source Protection Authority under the Clean Water Act
- Ensuring municipal and Six Nations drinking water systems are protected from contamination and overuse
- Updating the Grand River Source Protection Plan to reflect changes and new information
- Supporting implementation by municipalities and others

# 6. Connect people to the environment

## Outdoor environmental education

- Experiential learning for students from preschool to grade 12
- 30,000 students engaged each year through field trips to nature centres, at-school visits and some virtual programs
- Children's Water Festivals

## Providing outdoor recreation opportunities

- 11 Conservation Areas - camping, hiking, swimming, fishing, picnicking, and other activities
- Passive recreation on some conservation lands



# 7. Manage landholdings responsibly

## Conserving and managing lands

- GRCA owns more than 19,000 ha of land
- Lands support water management, recreation, education, protection of natural areas
- Some lands under leases and maintenance agreements
- Cottages at Belwood and Conestogo Lakes



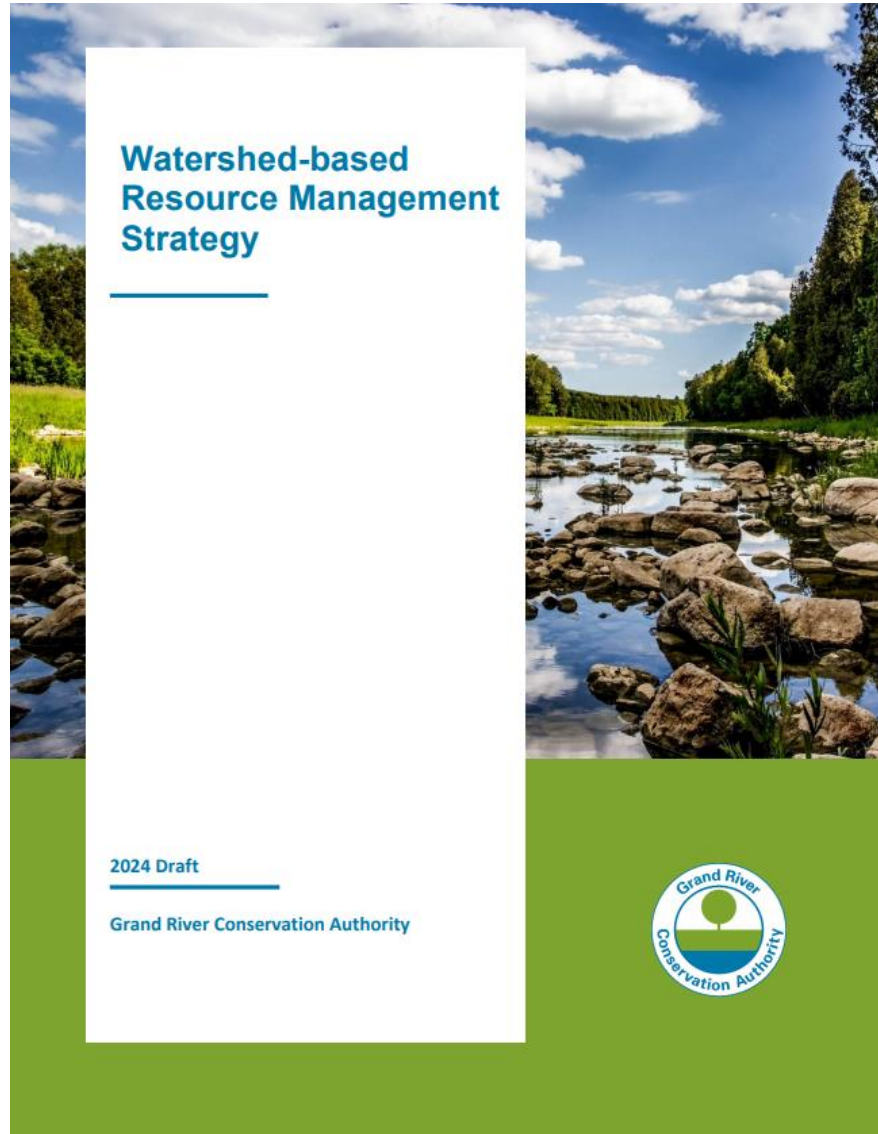
# Looking forward

- Relationship building and collaboration
- Adaptive management
  - Continue to respond to population growth, land use change, resource use, climate change
- Update the GRCA's Strategic Plan and the Grand River Water Management Plan as needed





# Would you like to read or comment on the Strategy?



Survey open until June 7<sup>th</sup>

[www.grandriver.ca/resourcestrategy](http://www.grandriver.ca/resourcestrategy)